

The Indianapolis Radio Club Founded In 1914
The oldest continuously meeting Amateur Radio Club in the United States

The club was founded in 1914 and has met continuously since. The club is now a general Interest group that meets on the second Friday of each month, except July and August. The meetings start at 7:30PM followed by a program of interest to all.

Programs cover a wide variety of interests; operation, technical subjects, talks by prominent Amateurs in our community as well as from other groups. Each December; the club hosts a dinner at which we present an award to the hard working amateur for Outstanding service to the Indianapolis Amateur community.

We are currently meeting at the Indianapolis Training Center at 2820 N. Meridian. There's an amateur radio station in the center, which our club helps supply and maintain.

Please attend our meetings and bring a guest.

The AMACHEWER NEWSLETTER for October 2004

Our Next Indianapolis Radio Club MEETING is:
November 12th (Fri) from 7:00PM until.
at the Indianapolis Training Center; 2820 N. Meridian Street.
PROGRAM is: "Broadband Data over Power Lines "(BPL)
By Mike Sercer - WA9FDO

for more EVENT / AGENDA goto www.IndyRadioClub.org &
click on the Meeting/Agenda link.

The October meeting of the Indianapolis Radio Club was held in the dinning room on the west side of the 1st floor of the Indianapolis Training Center. Club President: Chuck Crist, (W9IH), began the meeting promptly at 7:30 PM, and thanked the ITC for providing the pre-meeting coffee and cookies. Chuck announced that several business matters had been acted upon by the IRC Board of Directors on behalf of the club in an earlier meeting. A reading of the minutes from the last meeting was postponed due to the heavy work schedule and absence of the club Secretary. The club Treasurer, Tom Chance (K9XV), gave the Treasurer report . After this business was completed, the well-attended club meeting quickly moved to the less formal agenda items reported in this newsletter.

New Club Hams and New Calls: Tom -KC9GQM new Tech..

Club Hats Available:
In celebration of the IRC s 90th Anniversary, club hats with an embroidered club

logo

are available for purchase for \$20. The articles seen by this reporter were tan baseball style hats with black lettering, and appeared to be very well made. If you wish to purchase one of these handsome hats, be sure to come to the next club meeting and bring some extra money! You will be helping to support your club if you buy one of these hats.

Antenna Building Class:

Steve Wendt (KB9RDS) held an antenna-building workshop on September 26 for the young hams in the Indianapolis area. The session focused on constructing 2m and 6m J pole antennas from half inch copper pipe. Ask Steve about their successes at the November meeting. For a preliminary report, contact Steve Wendt directly. He is heard from time to time on the 146.10/.70 repeater, as well as HF.

Hamfest Calendar:

13-14 Nov 04; Indiana State Convention; Allen County AR Technical Society; Fort Wayne, IN. Contact: James Boyer, KB9IH; 3031 Wilderness Road; Fort Wayne, IN 46845; Phone: 260-489-6700; Email: kb9ih@arrl.net

NEW AWARD for 2004:

-Marconi Award created by IRC Pres. Chuck Crist- W9IH . rules ea.YR; Dec Meeting ;

For Tech excellence awards committee will make the selection.

- Awards committee Appointed:Don-N9Doo, Mike-WA9FDO, Chuck W9IH -give nominations to them! For Amateur of the year & Tech excellence & Young Ham Awards.

Amateur Radio Classes:

-The Red Cross of Indianapolis Radio Club is well into a 10-week class for prospective amateurs. See the IRC web site (www.indyradioclub.org) for more details.
-A radio study Group of Four is now a Group of Five. This small group has been meeting at 11:00 AM on Wednesdays at the McDonalds at 116th and I-69 to discuss questions and answers on amateur radio. They are currently beginning code practice and studies leading

to the General License. Two in the group passed their Tech exam at the Bedford Hamfest.

Another member of the group has passed his Tech Plus exam, and most recently passed his General License exam. The newest member to join the group is a former ham who intends to pass the required exams and reclaim his old call sign and a General License.

For more information, contact Tom Price (WB9UNG) at 849-6550.

-Businesss meeting called to order. Treas.Report given, no Sect . report available.

-IRC Constitution Review Committee Report:

A revised IRC Constitution was presented to the club as a result of the work of this committee.

President Chuck Crist reviewed the new constitution section by section. After several questions and answers, the revised IRC Constitution was adopted unanimously, following a motion by committee, which was seconded by Wes Murphy (N9AJM). The revised IRC Constitution is available for viewing at the club web site (www.indyradioclub.org).

- Special nominations for IRC Life Membership Don Hemenover- N9D00 By President W9IH Motion to grant N9D00 a Single life Membership for his past IRC service of 10 years plus as the Trustee and Club service commitments.

2nd: Bob Blake- N9FIM ; adopted unanimously

-Business meeting closed...

IRC Program:

Vice President Don Hemenover (N9D00) was away on an extended work assignment, so President Chuck Crist introduced Tom Chance (K9XV), who spoke on the topic Selecting Amateur Radio Gear for New and (Old) Hams. Tom covered his topic by speaking briefly on (a) a historical perspective of amateur equipment; (b) modes of communication; (c) available equipment; (d) antennas; and finally (e) how to have fun with amateur radio.

In his historical perspective, Tom commented on radio being a worldwide medium for communication in over 300 countries. Communication that was once earth-based now extends to satellite-based repeaters, and earth/moon bounce. Military communication

techniques have paralleled amateur techniques and modes. These modes include CW, AM, SSB, FM above 29MHz, Packet Radio, RTTY, PSK31, SSTV, FSTV, Pulse Amplitude Modulation, and other. In commenting on available equipment, Tom developed a summary chart that was available as a handout. Tom placed various transceivers into the following class categories for consideration: Basic; Compact; Sedan; and Contest. The handout details were then reviewed to reveal that at times the most expensive equipment does not always deliver the best performance. A prime example of this was the ElecCraft transceiver kit. It has very high performance

figures, but was relatively inexpensive when compared to some other rigs. Tadeusz Raczek (SP7HT) published his results in the September/October issue of NCJ.

He based the ranking table on equipment reviews that had been previously published in other magazines, such as QST. In the opinion of Raczek (and our speaker), the most important feature used to determine the ranking of various transceivers was the BDR, or Blocking Dynamic Range for an interfering signal 5KHz away from the signal of interest.

Mr. Chance was forced to limit his coverage of antennas because of time constraints.

This area is of great interest because it is a discipline that most new (and

experienced)
hams can and must master while constructing a new station.

In the category of radio fun, the speaker listed HF and VHF nets like those that operate at 7.258MHz, 14.3MHz, 21.390MHz, and others. On the VHF bands, there are many local nets that attract much interest and participation of new and old hams alike. Finally, in the fun category, Tom listed DX chasing, Contesting, Rag Chewing, and Making Scheduled Contacts.

We are all grateful to Tom Chance for assembling all the information he collected into an interesting topic, which he presented to the club in an enthusiastic and informative manner. Thanks for presenting such a fascinating program, Tom!

Door Prizes:

A number of fabulous door prizes, including a Sears Frequency Counter and a home brew UHF/VHF portable antenna, and were distributed to randomly selected members of the IRC who were in attendance using a timeless classical prize gathering and distribution algorithm perfected by Bob Osterhous (W9PSE). To learn more about the potential benefits of the door prize distribution process, be sure to attend the next IRC meeting!

November 12th IRC Program:

Mike Sercer (WA9FDO) will deliver the IRC program for the next meeting on Friday, November 12th on the topic Broadband Transmission Over Power Lines. This promises to be a topic of interest to both new and experienced hams alike.

Membership notice:-----
[]- November Business voting:

[]--Dec. Christmas dinner & 2005 Dues ;vote 2 motions Presented :
(1 vote per member)

Rationale :Board has been doing more things such as Meeting Refreshments, Post mail costs , PICNIC, Youth Group functions & more AWARDS and prize drawings.. Our Club is growing and dinner costs will be higher, average dinner past 2 years equaled approx. \$11.50/person

Therefore:The following Motions shall be voted on during the November IRC general business meeting.

(1) Motion: By the IRC board; IRC will pay for the 2004 Dec. meeting dinner as voted according to the following choices:(vote for one item only:)

Yea Nay

- A. IRC pays for (NO) 2004 Dec meeting meals . _____
- B. IRC pays for one (1) Meal / Member at the 2004 Dec. dinner Meeting. _____
- C. IRC pays for TWO (2) Meals / Member at the 2004 Dec. dinner Meeting. _____

(2) Motion: By the IRC board; Change the IRC dues according to a vote on the following parts 1,2 & 3 (vote for one item in each part:)

Part 1:

Change the IRC Individual - Regular membership dues; effective 01 JAN 2005
TO :

Yea Nay

- A. \$15/yr _____
- B. \$18/yr _____
- C. \$24/yr _____
- D. \$12/yr (no Change). _____

Part 2:

Change the IRC Family membership dues; effective 01 JAN 2005 TO :

(Note: Usual fees are 1/2 + Reg. Fees)

Yea Nay

- A. \$22/yr _____ (Max of 2 meals / Family at Dec Dinner if meals are paid by IRC.)
- B. \$27/yr _____ (Max of 3 meals / Family at Dec Dinner if meals are paid by IRC.)
- C. \$36/yr _____ (Max of 3 meals / Family at Dec Dinner if meals are paid by IRC.)
- D. \$18/yr _____ (Max of 2 meals / Family at Dec Dinner if meals are paid by IRC.)

Part 3:

Change the IRC Life membership dues; effective 01 JAN 2005 TO :

(Life dues have been 10 times the Individual - Regular membership annual dues.)

Yea Nay

- A. \$150/yr _____
- B. \$180/yr _____
- C. \$240/yr _____
- D. \$120/yr (no Change) _____

-Elections: Nominating committee Slate :Don-N9D00, Tom-WB9UNG & Ed-N9IZN.

Slate presented :

- Pres. _____ Chuck Crist-W9IH
- VP _____ Jacques Leroy-WH7I
- Treas. _____ Tom Chance- K9XV
- Sect. _____ Mike Henney-KE9YA
- Chief Op. _____ Trevor Fulk-N9YM
- Dir.at Large _____ Joe Lobraico sr -K900A
- Dir.at Large _____ Paul Bohrer-W9DUU

FYI Misc, NEWS Articles

-BPL UPDATE:

NEWS - CINERGY REFERENCED - BPL: FCC Sets Rules to Push:

Power-Line Broadband

Dow Jones, October 14, 2004, 11:06 a.m. EDT -- NEWS - CINERGY REFERENCED -
BPL: FCC Sets Rules to Push: Power-Line Broadband --
<http://online.wsj.com>-- ByBRIAN BLACKSTONE -- WASHINGTON -- The Federal Communications Commission adopted rules to facilitate deployment of broadband over electrical powerlines, also known as BPL, by addressing potential interference issues.

This adds a potent competitor to an increasingly crowded field of cable and telecommunications companies hoping to provide Internet, video and cable services to households.

"Today is a banner day," FCC Chairman Michael Powell said at the FCC's monthly meeting. "We talk so much about competition, well, here it is."

"We're cracking into third and fourth providers" of broadband to households, he added.

The FCC issued rules to avoid interference with public safety providers and licensed radio users. BPL will be excluded from some frequency bands and providers must notify safety authorities prior to deployment, according to the rules. They also order creation of a publicly accessible database to monitor interference.

The rules address key concerns about a technology which, if successful, could help expand broadband to some rural areas and inner cities that aren't wired for cable and the Internet.

"The only reason [BPL] hasn't been used to date is they hadn't solved the interference problem, and now technology has [helped solved it] and these FCC rules create regulatory certainty," said Scott Cleland, chief executive of Precursor, a Washington, D.C.-based research firm.

The FCC ruling "makes a green light apparent to investors that BPL is ready to go forward," said Jay Birnbaum, vice president of Maryland-based Current Communications Group. His firm is currently working with Cinergy Corp. to roll out broadband over power lines to residents in Cincinnati. He hopes to have 50,000 households covered by the end of the year.

"BPL will quickly join cable and DSL as a primary method" of getting broadband into the home, said Mr. Birnbaum.

The U.S. currently ranks 11th among major countries in broadband penetration, according to an FCC report released last month.

"I hope someday BPL will improve the situation," said FCC Commissioner Michael Copps, one of two Democrats on the five-member panel. "We're late to the game." Mr. Copps expressed concern about interference and the potential for cross-subsidization between utilities and telecommunications.

Earlier this week, Mr. Powell and Federal Energy Regulatory Commission

Chairman Patrick Wood III signaled their support of development of broadband over power lines at a demonstration of the technology in Manassas, Va.

Though BPL's reach is still measured in the hundreds or thousands of customers instead of millions, Mr. Cleland of Precursor sees huge potential once the technology is up and running. "It's cheaper than other alternatives and easier to install," he said, "and those are powerful advantages in the long term."

----Last thought... I recently found this article and thought it was very appropriate
to most HAM clubs today...
"WHOSE JOB IS IT?"

This is a story about four people named Everybody, Somebody, Anybody and Nobody. There was an important job to be done, and Everybody was sure Somebody would do it. Anybody could have done, but Nobody, did it. Somebody got angry about that, because it was Everybody's job. Everybody thought Anybody could do it, but Nobody realized that Everybody wouldn't do it. It ended up that Everybody blamed Somebody when Nobody did what Anybody could have done.

P.E.Watts (orginal date:Nov.1999)

Puzzle and Solution:

Sound travels about 1100 feet per second at standard temperature and pressure (STP).

An organ pipe in a nearby church at STP is roughly 16 feet long. (a) If the organ pipe is sustaining a full wave vibration, at what frequency is its note? (b) What is the letter name of this pitch or frequency? (c) In music, what is the ratio of a note on the scale to the next higher or lower note?

(a) Solve the first part of this problem using a formula analogous to the radio antenna formula.

Specifically, $(\text{wavelength in medium}) = (\text{speed of wave in medium}) / (\text{frequency})$

(b) Part (b) is immediately obvious if you have perfect pitch. Just hum a note at the frequency calculated in part (a), and then name the note. If you are note gifted with perfect pitch, then apply the results of part (c) below to determine the answer.

(c) There are 12 musical pitches in each musical octave. The 12th note is exactly twice the frequency of the first note in the octave, so the frequency of each successive note is

the twelfth root of 2 times the frequency of its predecessor. (Multiplying something by the twelfth root of 2 twelve times will double the original value.) In an orchestra, the pitch of the note A above middle C is assigned the frequency 440Hz. The note A that is one octave lower has a frequency of 220Hz, and the note one octave below that note has a frequency of 110Hz. Now, stepping down note by note, the note just below A is G#, then G, then F#, then F, then E, then D#, then D, then C#, then C, then B, then A#, followed by A, and the sequence repeats. Each successive lower note is the frequency of its predecessor divided by the twelfth root of 2. Now apply what you have learned in this section to determine an answer to part (b), assuming that the organ pipe was tuned to an orchestral pitch.

A contemporary of J.S. Bach reportedly took a long time to empirically work out the intervals between notes within an octave. Prior to this work, it was not possible to play a composition equally well in all the musical keys. The notes were not well-tempered. Had a physicist who understood octaves and a mathematician who knew about the twelfth root of two been on the team, those years of work might have been reduced to a weekend project! Bach's work to illustrate the well-tempered scale is captured in his composition The Well-Tempered Clavier. To research further, see J. Redfield, Music: A Science and an Art (1928).

2004 Club Officers / committees
Pres.: Chuck W9IH | VP: Don N9DOO |
Sect.: Maria KB9RLG | Treas.: Tom K9XV | Chief Op: Mike KB9RBF
| Dir.: Bill K9DBY | Dir.: Don Fulk KB9EBC |
Trustee: Don N9DOO | News Editor: (TEMP) Tom WB9UNG |
Asst. News Editor: Bob Osterhous - W9PSE

Any Additional News Items: If you have news that should be reported in the next issue of club newsletter, please feel free to send it to your acting editor, Tom Price, at the email address pricetr@comcast.net.
